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PATENT  
Attorney Docket No: 27013/38150

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Lutz Gissman and Martin Mueller

Application Serial No. 10/042,526

Filed: January 8, 2002

For: Papilloma Virus Capsomere  
Vaccine Formulations and Methods of  
Use

Group Art Unit: 1648

Examiner: TBD

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Eric M. Brusca

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
Washington, DC 20231

Sir:

In compliance with 37 C.F.R. §1.97 and the continuing duty of disclosure under 37 C.F.R. §1.56, the attached PTO-1449 is hereby submitted by Applicants. The Applicants request that the documents listed on the PTO-1449 be made of record and considered by the Examiner in connection with the above-identified patent application. Copies of the cited documents have been previously filed and may be found in the related application United States Serial No.: 08/944,368. Accordingly, pursuant to 37 C.F.R. §1.98(d), no copies have been submitted herewith. However, at the Examiner's request, copies can be supplied.

This IDS is not intended to be an admission that a search has been made or that any of the documents constitute statutory prior art.

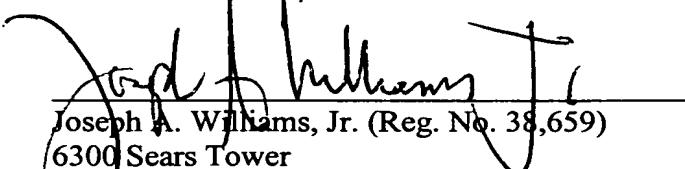
This statement and PTO-1449 form are submitted before receipt of a first Office Action in the above-identified patent application. Accordingly, the Applicants

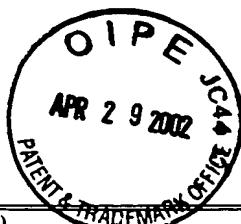
believe there are no fees due at this time. The Commissioner is hereby authorized to charge any deficiency in the amount enclosed or any additional fees which may be required to Deposit Account No. 13-2855. A duplicate of this paper is enclosed.

Respectfully submitted,

MARSHALL, GERSTEIN & BORUN

By

  
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SHEET 1 of 3

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Serial No.  
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Applicant  
**Müller and Gissman**

Filing Date  
**1-8-2002**

Group  
**1648**

### U.S. PATENT DOCUMENTS

*Examiner Initials		Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
	A1	5,855,891	1-5-98	Low, et al.			

### FOREIGN PATENT DOCUMENTS

*Examiner Initials		Document Number	Publication Date	Country	Class	Subclass	Translation
							Yes      No
	B1	WO 94/00152	01-06-94	PCT			
	B2	WO 93/02184	02-04-93	PCT			
	B3	WO 93-20844	10-28-93	PCT			
	B4	DE 4435907 A	4-11-96	Germany			
	B5	WO 99/10557	1-14-99	PCT			
	B6	WO 98/42847	10-1-98	PCT			
	B7	WO 96/11274	4-18-96	PCT			

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	C1	Altmann, et al., "Towards HPV Vaccination," <i>Viruses and Cancer</i> , Minson et al., (eds.) Cambridge University Press, (1994) pp. 71-80
	C2	Arbeit, et al., "Progressive Squamous Epithelial Neoplasia in K14-Human Papillomavirus Type 16 Transgenic Mice," <i>J. Virol.</i> 68:4358-4364 (1994)
	C3	Auewarakul, et al., "Targeted Expression of the E6 and E7 Oncogenes of Human Papillomavirus Type 16 in the epidermis of Transgenic Mice Elicits Generalized Epiderman Hpreplasia Involving Autocrine Factors," <i>Mol. Cell. Biol.</i> 14:8250-8258 (1994)
	C4	Ausebel, et al., (eds.), <i>Protocols in Molecular Biology</i> , John Wiley & sons, Inc. (1994-1997)

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

C5	Barbosa, <i>et al.</i> , "In Vitro Biological Activities of the E6 and E7 Genes Vary among Human Papillomaviruses of Different Oncogenic Potentials," <i>J. Virol.</i> <b>65</b> :292-298 (1991)
C6	Campo, "Vaccination Against Papillomavirus in Cattle," <i>Curr. Top. in Microbiol. and Immunol.</i> <b>186</b> :225-266 (1994)
C7	Crum, "Human Papillomavirus Type 16 and Early Cervical Neoplasia," <i>New Eng. J. Med.</i> <b>310</b> :880-883 (1984)
C8	Ikenberg, "Human Papillomavirus DNA in Invasive Genital Carcinomas," In Gross, <i>et al.</i> , (eds.) <i>Genital Papillomavirus Infections</i> , Springer Verlag: Berlin, pp. 87-112
C9	Kaur, <i>et al.</i> , "Immortalization of Primary Human Epithelial Cells by Cloned Cervical Carcinoma DNA Containing Human Papillomavirus Type 16 E6/E7 Open Reading Frames," <i>J. Gen. Virol.</i> <b>70</b> :1261-1266 (1989)
C10	Kirnbauer, <i>et al.</i> , "Papillomavirus L1 major capsid protein self-assembles into virus-like particles that are highly immunogenic," <i>Proc. Natl. Acad. Sci (USA)</i> , <b>99</b> :12180-12814 (1992)
C11	Kirnbauer, <i>et al.</i> , "Efficient Self-Assembly of Human Papillomavirus Type 16 L1 and L1-L2 into Virus-Like Particles," <i>J. Virol.</i> <b>67</b> :6929-6936 (1994)
C12	Li, <i>et al.</i> , "Expression of the Human Papillomavirus Type 11 L1 Capsid Protein in <i>Escherichia coli</i> : Characterization of Protein Domains Involved in DNA Binding and Capsid Assembly," <i>J. Virol.</i> <b>71</b> :2988-2995 (1997)
C13	Prober, <i>et al.</i> , "A System of Rapid DNA Sequencing with Fluorescent Chain-Terminating Dideoxynucleotides," <i>Science</i> <b>238</b> :336-341 (1987)
C14	Rose, <i>et al.</i> , "Expressing of Human Papillomavirus Type 11 L1 Protein in Insect Cells: In Vitro and In Vitro Assembly of Virus like Particles," <i>J. Virol.</i> <b>67</b> (4):1936-1944 (1992)
C15	Sambrook, <i>et al.</i> , (eds.), <i>Molecular Cloning: A Laboratory Manual</i> , Cold Spring Harbor Press: Cold Spring Harbor, NY (1989)
C16	Sasagawa, <i>et al.</i> , "Synthesis and Assembly of Virus-like Particles of Human Papillomaviruses Type 6 and Type 16 in Fission Yeast <i>Schizosaccharomyces pombe</i> ," <i>Virology</i> <b>206</b> :126-195 (1995)
C17	Schlegel, <i>et al.</i> , "Quantitative keratinocyte assay detects two biological activities of human papillomavirus DNA and identifies viral types associated with cervical carcinoma," <i>EMBO J.</i> , <b>7</b> :3181-3187 (1988)
C18	Volpers, <i>et al.</i> , "Binding and Internalization of Human Papillomavirus Type 33 Virus-Like Particles by Eukaryotic Cells," <i>J. Virol.</i> <b>69</b> :3258-3264 (1995)

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	C19	Tindle and Frazer, "Immune Response to Human Papillomaviruses and the Prospects for Human Papillomavirus-Specification Immunisation," <i>Curr. Top. In Microbiol. and Immunol.</i> <b>186</b> :217-253 (1994)
	C20	Wettstein, <i>et al.</i> , "State of Viral DNA and Gene Expression in Benign vs. Malignant Tumors," <i>Papilloma Viruses and Human Cancer</i> , Pfister (Ed.), CRC Press: Boca Raton, FL 1990, pp. 155-179
	C21	Zhou, <i>et al.</i> , "Expression of Vaccinia Recombinant HPV 16 L1 and L2 ORF Proteins in Epithelial Cells is Sufficient for Assembly of HPV Virion-like Particles," <i>Virology</i> <b>185</b> :251-257 (1991)
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	C23	Li, <i>et al.</i> , "Expression of the Human Papillomavirus Type 11 L1 Capsid Protein in <i>Escherichia coli</i> : Characterization of Protein Domains L involved in DNA Binding and Capsid Assembly," <i>J. Virol.</i> <b>71</b> :2988-2995 (1997)
	C24	Müller, <i>et al.</i> , "Chimeric Papillomavirus-like Particle," <i>Virol.</i> <b>234</b> :93-111 (1997)
	C25	Painstil, <i>et al.</i> , "Carboxyl Terminus of Bovine Papillomavirus Type-1 L1 Protein is Not Required for Capsid Formation," <i>Virol.</i> <b>223</b> :238-244 (1996)
	C26	Rose, <i>et al.</i> , "Serological differentiation of human papillomavirus types 11, 16 and 18 using recombinant virus-like particles," <i>J. Gen Virol.</i> <b>75</b> :2445-2449 (1994)

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.